CLAIMS

1. A method of enhancing audibility of a far-end speech signal from a far-end user to a near-end user in a telephone system, including the steps of

determining a gain as a function varying in both in an estimated near-end background noise signal level and an estimated near-end speech signal level; and

applying said gain to said far-end speech signal.

2. The method of claim 1, including the steps of

determining a first threshold from an estimated maximum far-end speech signal level;

limiting said gain to values below said first threshold.

3. The method of claim 1, including the steps of

determining a second threshold from at least one estimated echo return loss;

limiting said gain to values below said second threshold.

4. the method of claim 1, including the steps of

determining a first threshold from an estimated maximum far-end speech signal level;

determining a second threshold from at least one estimated echo return loss;

limiting said gain to values below the smallest of said first and second thresholds.

5. The method of any of claims 1-5, including the step of low pass filtering said determined gain before application to said far-end speech signal.

6. An apparatus for enhancing audibility of a far-end speech signal from a far-end user to a near-end user in a telephone system, including

gain control logic for determining a gain as a function varying in both an estimated near-end background noise signal level and an estimated near-end speech signal level; and

an amplifier for applying said gain to said far-end speech signal.

7. The apparatus of claim 6, including

means for determining a first threshold from an estimated maximum far-end speech signal level;

means for limiting said gain to values below said first threshold.

8. The apparatus of claim 6, including

means for determining a second threshold from at least one estimated echo return loss;

means for limiting said gain to values below said second threshold.

9. the apparatus of claim 6, including

means for determining a first threshold from an estimated maximum far-end speech signal level;

means for determining a second threshold from at least one estimated echo return loss;

means for limiting said gain to values below the smallest of said first and second thresholds.

10. The apparatus of any of claims 6-9, including a low pass filter for filtering said determined gain before application to said far-end speech signal.